



# Development of a Water Quality Improvement Plan

## McClure River Watershed

July 16, 2019- 1<sup>st</sup> Public Meeting

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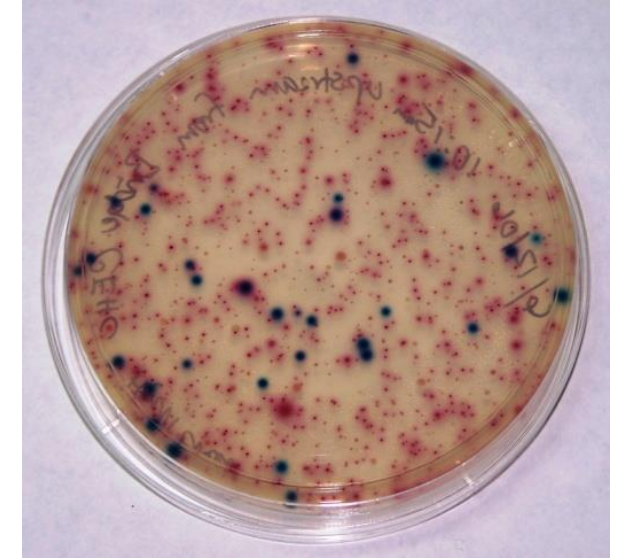
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Virginia Department of Environmental Quality

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Virginia Tech

# Why are we here today?

Too much **bacteria** (*E.coli*) in the watershed

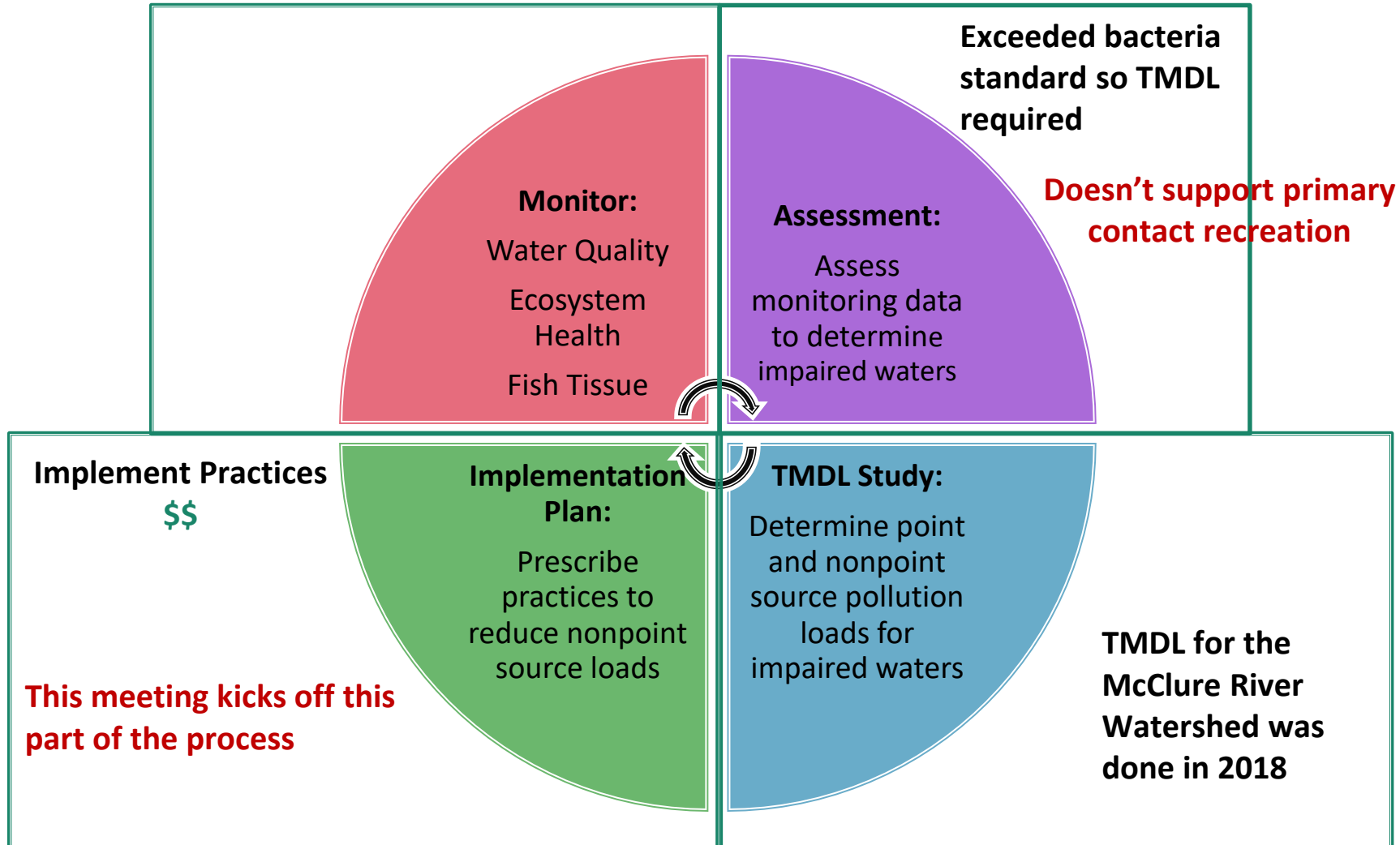
- Human health concern
- Indicator of pathogens in the water
- Impacts on livestock



Discuss:

- Overview of the TMDL/IP process to reduce bacteria
- Description of the impairments
- Timeline
- Next Steps- how to get involved

# Virginia's Water Quality Process



# What is a TMDL?

Total Maximum Daily Load is the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards.

A TMDL includes:

- Source assessment
- Modeling
- Load allocation



# What is a Water Quality Improvement Plan?

## Implementation Plan (IP)

What this plan is.... **Participatory process**

- **Road map** to water quality improvement
- **Timeline** for implementation actions
- Source of ideas for **outreach** activities
- Tool for identifying and bringing in **funding**

Tells us “how” to improve water quality

What this plan isn't...

- A regulatory tool for non point source pollution
- A static document that must be followed to the letter

# What is your role in the process?

IPs are only as good as the information we feed them

Need your help to know what's realistic... What are the real needs & interests?

Provide comments/feedback on:

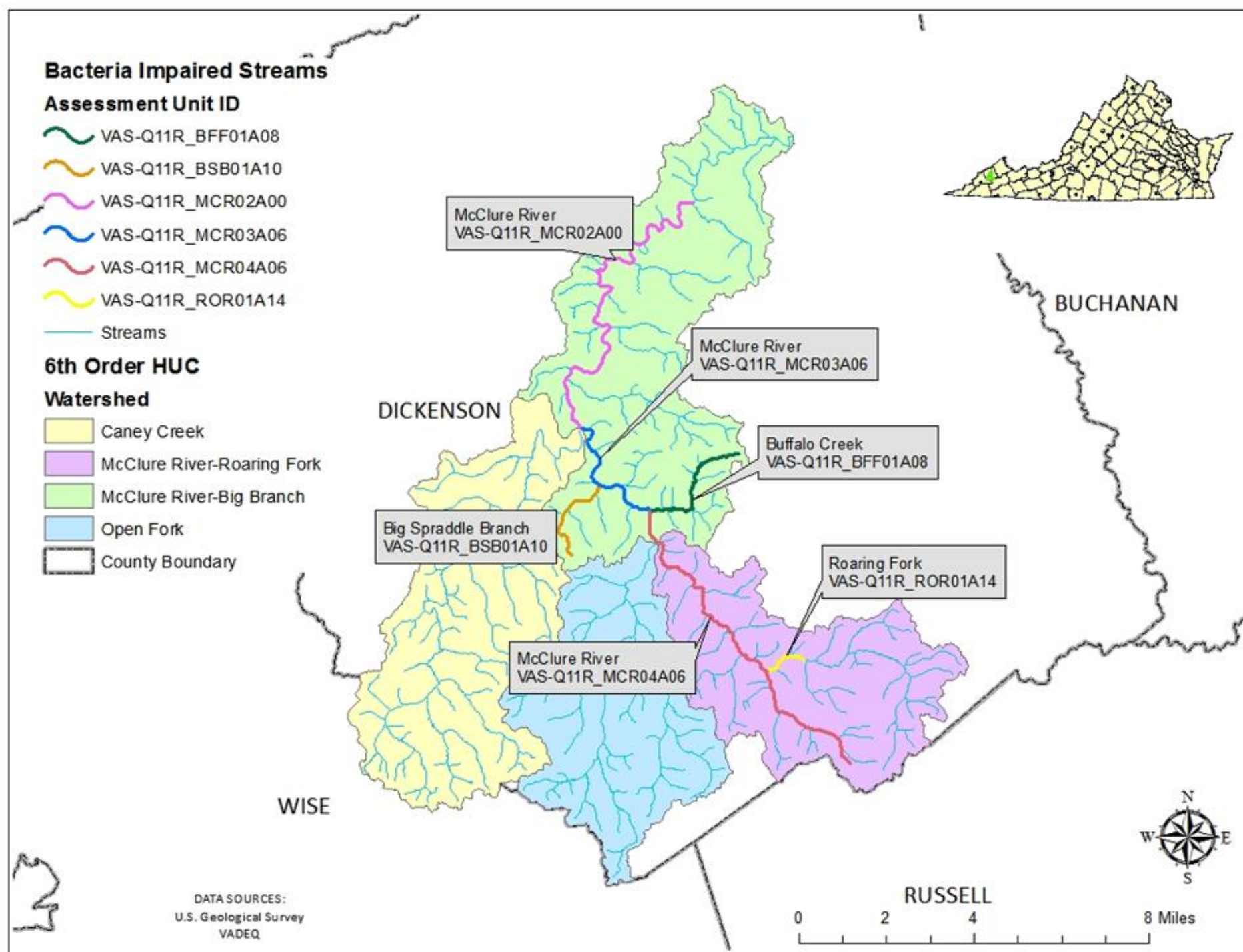
- Land use practices
- Failing septic systems and straight pipes
- Livestock, wildlife and pet population estimates
- Are there particular management strategies that will work well in this area?
- Are there strategies that should be avoided?

Recommend outreach activities

Identify potential partner organizations

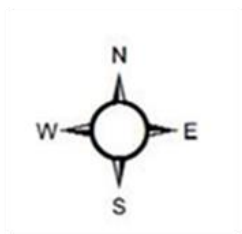


# Review of the TMDL study Impairments



# Review of the TMDL study

## Land Use



Land use	Area	
	Acres	%
Barren	873	1
Forest	55,101	81
Agriculture	6,704	10
Residential	5,466	8
Water	16	<1
TOTAL	68,160	

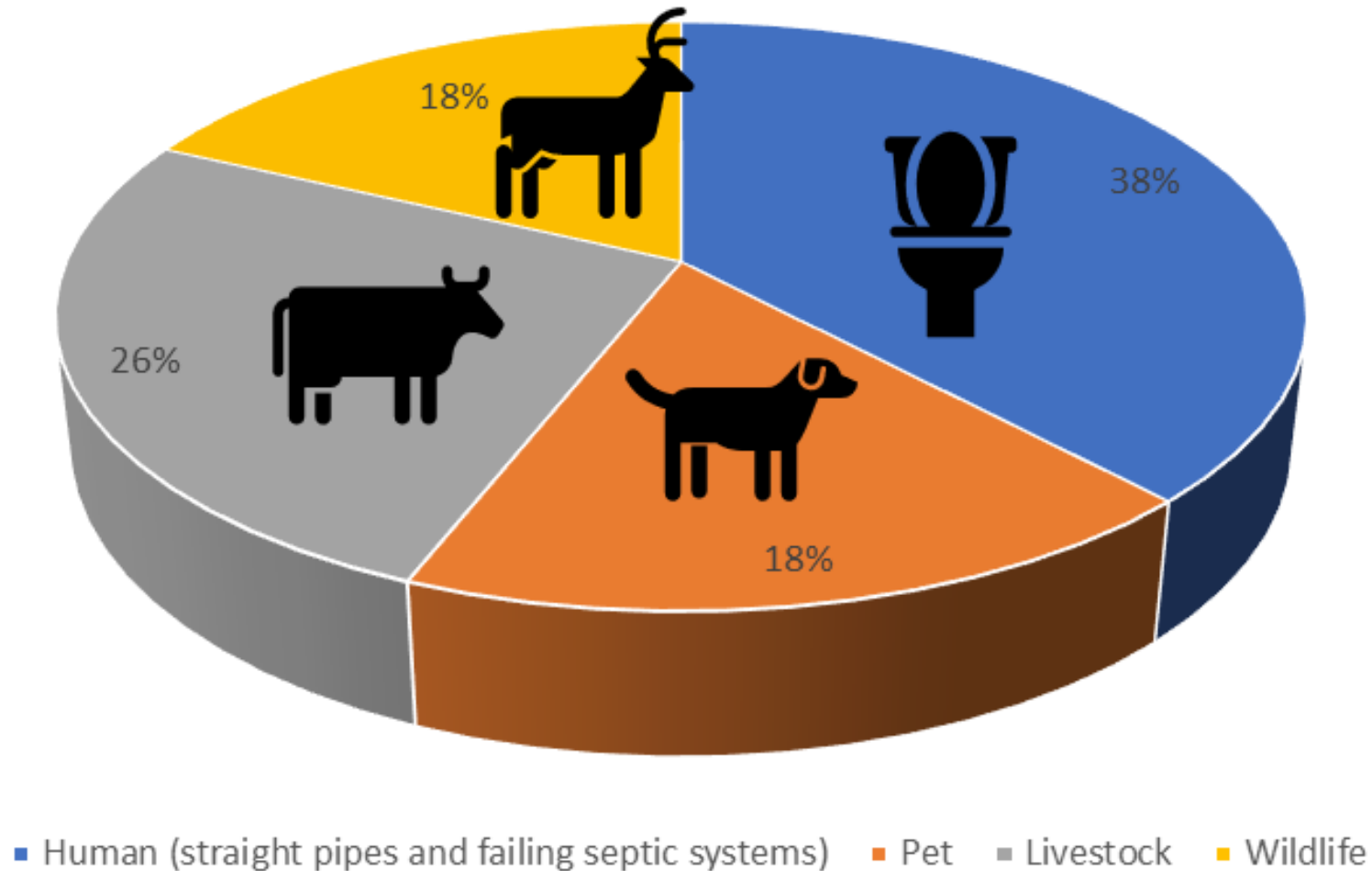
DATA SOURCES:  
U.S. Geological Survey, 20140331,  
NLCD 2011 Land Cover (2011 Edition)





# Review of the TMDL study

## Bacteria Source Assessment



# Review of the TMDL study

## Bacteria Load Reductions

Goal	Load Reduction	Water Quality Standard Exceedance Rate
Existing	0%	52%
Stage 1	50%	26%
Stage 2 (Delisting)	75%	9%
TMDL	88%	0%

## Next steps

- Join the Working Group
  - Provide input on best management practices based on local interest
  - Share ideas on outreach tools to maximize landowner participation
  - Review draft of the water quality improvement plan
  - Plan for the final public meeting

## Next steps

	Tentative Date
First Public Meeting	July 16, 2019
Working Group Meetings	as needed
# 1	August 2019
# 2	September 2019
# 3	February 2020
Final Public Meeting	March 2020
Public Comment Period	April 2020 (30 days after Final Public Meeting)

# Public Comment

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## Questions?